

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
13 January 2005 (13.01.2005)

PCT

(10) International Publication Number  
**WO 2005/002716 A1**

(51) International Patent Classification<sup>7</sup>: **B01J 2/16, 8/28**

(21) International Application Number:  
PCT/EP2004/005375

(22) International Filing Date: 19 May 2004 (19.05.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
03014360.6 26 June 2003 (26.06.2003) EP

(71) Applicant (for all designated States except US): **UREA CASALE S.A.** [CH/CH]; Via Giulio Pocobelli, 6, CH-6900 Lugano-Besso (CH).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **BEDETTI, Gianfranco** [IT/IT]; Via Filippo Carcano, 15, I-20149 Milano (IT).

(74) Agent: **ZARDI, Marco**; M. Zardi & Co. S.A., Via Pioda 6, CH-6900 Lugano (CH).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

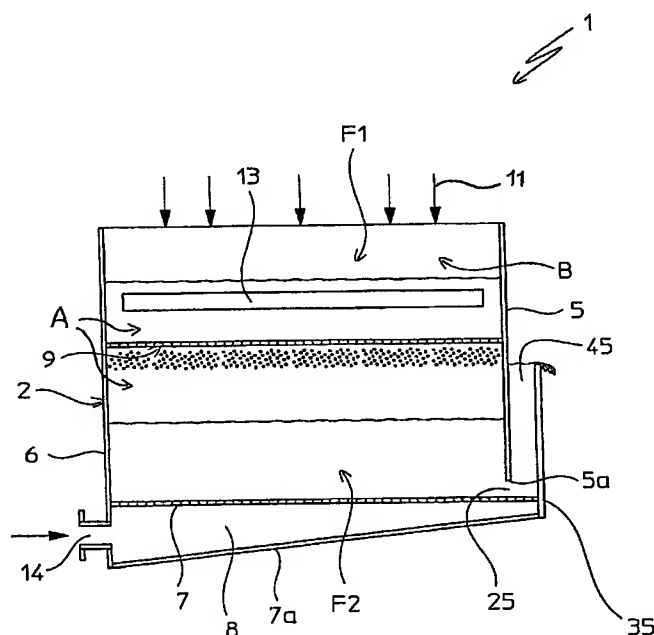
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FLUID BED GRANULATION PROCESS AND APPARATUS



(57) Abstract: A process for obtaining finished granules of a predetermined substance in a granulation fluid bed (F1) of the so-called vertical growth type, the bed being formed and maintained by a respective flow of fluidification air, comprises a transfer phase by falling of the finished granules in a pressurized space below the granulation bed and a recovery phase of the finished granules from the pressurized space.

WO 2005/002716 A1